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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/010,583	11/13/2001	Guang Gao	24545B	5783
22889	7590	08/12/2003		
OWENS CORNING 2790 COLUMBUS ROAD GRANVILLE, OH 43023			EXAMINER	JIMENEZ, MARC QUEMUEL
			ART UNIT	PAPER NUMBER
			3726	5
			DATE MAILED: 08/12/2003	

Please find below and/or attached an Office communication concerning this application or proceeding.

Called  
Ms. Eckert  
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3/5/04 re. response to  
8/12/03 office action

N,K

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/010,583	GAO ET AL.
	Examiner Marc Jimenez	Art Unit 3726

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on \_\_\_\_\_ .
- 2a) This action is **FINAL**.                  2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) 11-17 is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-10 is/are rejected.
- 7) Claim(s) 9 is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 13 November 2001 is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

#### Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) All b) Some \* c) None of:  
1. Certified copies of the priority documents have been received.  
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_ .  
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)                  4) Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_ .
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)                  5) Notice of Informal Patent Application (PTO-152)
- 3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) 1 .                  6) Other: \_\_\_\_\_ .

Art Unit: 3726

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1-10, drawn to a roll, classified in class 492, subclass 16.
  - II. Claim 11, drawn to a method of coating, classified in class 427, subclass 428.
  - III. Claims 12-17, drawn to a coating apparatus, classified in class 118, subclass 234.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions Group I and II are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case the apparatus of Group I as claimed can be used in a materially different process such as one for guiding a plurality of narrow strips without the application of coating thereon.
3. Inventions Group I and III are independent and distinct inventions in that Group III does not require a roll with a shaft with a curved central axis and Group I does not require a sizing delivery assembly for transfer on the substrate to be coated when the substrate contacts the element having a curved central axis.
4. Inventions Group II and III are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case the

apparatus of Group III as claimed can be used in a materially different process such as one for applying coating to narrow strips of material or capillary tubing or applying material such as paint.

5. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

6. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

7. During a telephone conversation between Examiner Brenda Lamb and Attorney Stephen Barnes on 7/31/03 a provisional election was made with traverse to prosecute the invention of Group I, claims 1-10. Affirmation of this election must be made by applicant in replying to this Office action. Claims 11-17 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

8. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

*Response to Amendment*

9. On page 1 of the preliminary amendment filed 11/13/01 (paper #4) under the heading "In the Claims", the request to cancel claims 18-27 has not been entered because claims 18-27 are not currently pending in the case. The claims number only from 1-17.

*Specification*

10. *The abstract* of the disclosure is objected to because on the first line of page one of the specification: - - now patent no. 6,358,317 issued 3/19/2002 - - should be inserted in place of "(and still pending)". Correction is required. See MPEP § 608.01(b).

*Claim Objections*

11. **Claim 9** is objected to because of the following informalities: in line 2 "of said" should be - - said - -. Appropriate correction is required.

*Claim Rejections - 35 USC § 102*

12. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

13. **Claims 1-8** are rejected under 35 U.S.C. 102(b) as being anticipated by Morrill (2,771,658).

Morrill teaches a roll comprising: a shaft **11** having a curved central axis (see fig. 1 and col. 2, line 17), and a sleeve **10** covering at least a portion of the shaft **11**, the sleeve **10** being rotatable relative to the shaft (col. 2, lines 16-17).

Regarding the limitations “for applying a sizing composition to a fan of one or more fibers” and “wherein each fiber of said fan of one or more fibers contacts said sleeve at an axial location of said sleeve, and wherein each fiber of said fan of one or more fibers lies substantially in a plane perpendicular to said curved central axis of said shaft at said axial location”, it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987). Furthermore, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963).

Regarding claim 2, the shaft **11** is fixed at one end **24** thereof, and the sleeve **10** is “adapted to” be connected to a drive device to rotate the sleeve relative to the shaft **11**. Note that it has been held that the recitation that an element is “adapted to” perform a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense. *In re Hutchison*, 69 USPQ 138.

Regarding claims 3 and 4, the sleeve is constructed from an elastomer material, specifically rubber (col. 2, lines 14-15, “rubber-like sheath”).

Regarding claim 5, the curved central axis includes an arcuate portion (see fig. 1) having a radius defining a focal point spaced from the curved central axis. Regarding the limitations that the fiber moves over the roll, it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987). Furthermore, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art.

See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963).

Regarding claim 6, the sleeve **10** rotates about the curved central axis of the shaft **11**.

Regarding claim 7, the shaft **11** includes an arcuate center portion (see fig. 1), a first linear portion **22** (see fig. 1 on the right side of roll) extending from a first end of the arcuate center portion and a second linear end portion **22** (see fig. 1 on right side of roll) extending from a second end of the arcuate center portion.

Regarding claim 8, the sleeve **10** covers all of the arcuate center portion of the shaft **11** and at least a portion of the first and second end portions **22** of the shaft (note that the first and second portions **22** extend under lead line **23** see fig. 1).

Art Unit: 3726

14. **Claims 1, 2, and 5-10** are rejected under 35 U.S.C. 102(b) as being anticipated by Kuehn (Re. 27,445).

Kuehn teaches a roll comprising: a shaft **12** having a curved central axis **24'**, and a sleeve **13** covering at least a portion of the shaft **12**, the sleeve **13** being rotatable relative (col. 3, lines 22-23) to the shaft **12**.

Regarding the limitations “for applying a sizing composition to a fan of one or more fibers” and “wherein each fiber of said fan of one or more fibers contacts said sleeve at an axial location of said sleeve, and wherein each fiber of said fan of one or more fibers lies substantially in a plane perpendicular to said curved central axis of said shaft at said axial location”, it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987). Furthermore, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963).

Regarding claim 2, the shaft **12** is fixed at one end **16** and the sleeve **13** is adapted to be connected to a drive device **19** to rotate the sleeve relative to the shaft **12**.

Regarding claim 5, the curved central axis **24'** includes an arcuate portion (see fig. 2) having a radius defining a focal point spaced from the curved central axis. Regarding the limitations that the fiber moves over the roll, it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987). Furthermore, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963).

Regarding claim 6, the sleeve **13** rotates about the curved central axis **24'** of the shaft **12**.

Regarding claim 7, the shaft **12** includes an arcuate center portion (see fig. 2), a first linear portion (see above lead line **30** in fig. 2 on the right side of roll) extending from a first end of the arcuate center portion and a second linear end portion (fig. 2 on left side of roll there is also a linear shaft end portion) extending from a second end of the arcuate center portion.

Regarding claim 8, the sleeve **13** covers all of the arcuate center portion of the shaft **12** and at least a portion of the first and second end portions of the shaft (note that the first and second portions of the shaft **12** extend above lead line **30**).

Regarding claim 9, note the bushing **30** interposed between the sleeve **13** and the shaft **12** (ie. "between" the end of the sleeve and the end of the shaft), wherein the bushing is in sliding

rotational relationship with the shaft 12, and wherein the bushing 30 is affixed to the sleeve 13 (via 33) such that the bushing 30 rotates with the sleeve 13 (they both rotate together) around the shaft 12.

Regarding claim 10, a first end of the bushing 30 is affixed to the sleeve 13 (via 33), and wherein a second end of the bushing 30 is affixed to a drive device 19 for effecting rotation (col. 3, lines 20-23) of the sleeve 13 about the shaft 12.

***Claim Rejections - 35 USC § 103***

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

16. **Claims 3 and 4** are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuehn in view of Morrill.

Kuehn teaches the invention cited with the exception of the sleeve being made of an elastomer material.

Morrill teaches a sleeve constructed from an elastomer material, specifically rubber (col. 2, lines 14-15, “rubber-like sheath”).

It would have been obvious to one of ordinary skill in the art, at the time of the invention, to have provided the invention of Kuehn with the claimed elastomer material, in light of the teachings of Morrill, in order to provide a roll shell that will not rust.

***Contact Information***

17. Telephone inquiries regarding the status of applications or other general questions, by persons entitled to the information, should be directed to the group clerical personnel. In as much as the official records and applications are located in the clerical section of the examining groups, the clerical personnel can readily provide status information. M.P.E.P. 203.08. The Group clerical receptionist number is (703) 308-1148.

If in receiving this Office Action it is apparent to applicant that certain documents are missing, e.g., copies of references cited, form PTO-1449, form PTO-892, etc., requests for copies of such papers or other general questions should be directed to Tech Center 3700 Customer Service at (703) 306-5648, or fax (703) 872-9301 or by email to [CustomerService3700@uspto.gov](mailto:CustomerService3700@uspto.gov).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marc Jimenez whose telephone number is **703-306-5965**. The examiner can normally be reached on **Monday-Friday, between 5:30 am- 2:00 pm**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Greg Vidovich can be reached on 703-308-1513. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9302 for regular communications and 703-872-9303 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1148.

Art Unit: 3726

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Marc Jimenez  
Patent Examiner  
AU 3726

**MJ**

August 7, 2003